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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

HARPER, KEVIN C

ART UNIT

PAPER NUMBER

2666

DATE MAILED: 01/15/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/848,871

Applicant(s)

JABER ET AL.

Examiner

Kevin C. Harper

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 18.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Arguments

Applicant's arguments filed September 4, 2003, have been fully considered but they are not persuasive.

1. Applicant argued that the Derby reference teaches away from having asymmetric connections. Examiner considers an asymmetric connection as a connection having less bandwidth than a connection in the opposite direction, and in the case of Derby, the bandwidth on a link between nodes or subnodes being different in different directions. In the present invention, asymmetric connections are also related to the bandwidth available in a particular direction on a particular link (page 3, page lines 21-24; claim 7). A reverse optimal path is not required in Derby and therefore a reverse path from a destination to a source following the same path as from the source to the destination does not preclude asymmetric connections or links in Derby.

2. Applicant argued that there is no motivation for having asymmetric connections in Derby. However in Ahmed, the motivation for asymmetric connections is to allow for a larger bandwidth in one direction because inherently more bandwidth is required in the one direction (col. 2, lines 6-8 and 20-24).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-6, 9-14 and 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Derby et al. (US 5,483,522) in view of Ahmed et al. (US 5,432,783).

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3. Regarding claims 1, 4-5, 9, 12-13, 17 and 20-21, Derby discloses a method of providing an internal topology of a node within a network (Figure 6; col. 5, lines 56-67) comprising determining intranode connectivity between traffic bearing components in a network node (col. 8, lines 20-26; col. 10, Table 1), distributing a model of the node to other nodes (col. 5, lines 62-67), and using the model in determining a routing path (col. 5, lines 56-58). However, Derby does not disclose the connections between the traffic bearing components as asymmetric.

Ahmed discloses connections among switching entities that are bi-directional and asymmetric (col. 2, lines 5-8) in order to accommodate a larger capacity in one direction. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have asymmetric connections between traffic bearing components in the invention of Derby.

4. Regarding claim 2, 10 and 18, the traffic bearing components of Derby are receiver transmitter pairs (Figure 2; col. 5, lines 30-45).

5. Regarding claim 3, 11 and 19, Derby does not disclose that the interfaces to external nodes are lower speed. One skilled in the art would recognize that appropriate bandwidth is typically used for connectivity. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have lower speed external interfaces in the invention of Derby in order to efficiently utilize connections to external end nodes.

6. Regarding claim 6, 14 and 22, Derby does not disclose that the network (Figure 1) is private. One skilled in the art would recognize that networks are private in order to provide dedicated access and security to the owner or a user. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to make private the network of Derby.

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Claims 7-8, 15-16 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Derby in view of Ahmed as applied to claims 1, 9 or 17 above, and further in view of Le Boudec et al. (US6,016,306).

7. Regarding claims 7-8, 15-16 and 23-24, Derby in view of Ahmed does not disclose assigning weights for the connections. However, Le Boudec discloses assigning links based on cost, bandwidth or delay (col. 1, lines 39-52 and 56-62) and using an Open Shortest Path First routing determination to find a best path by minimizing the weights. Further, one skilled in the art would recognize the potential for a lower bandwidth path to have a higher associate delay, hence a higher weighing than a higher bandwidth path. Still further, one skilled in the art would recognize that weights are typically assigned to intermediate connections based on availability, reliability, congestion, distance, etc., in order to properly determine an optimal route or best path from a source to a destination involving the connections. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to assign appropriate weights to the connections in the invention of Derby in view of Ahmed as evidenced by Le Boudec in order to provide optimal routing within the network.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 703-305-0139. The examiner can normally be reached weekdays, except Wednesday, from 9:30 AM to 8:00 PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao, can be reached at 703-308-5463. The fax number for Technology Center (TC) 2600 is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Customer Service Office for TC 2600 at 703-306-0377.

Kevin C. Harper



January 10, 2004



EXAMINER
TECHNOLOGY CENTER